

## CLAIMS

1. A medical device comprising:  
a stud configured to project percutaneously outward through a patient's skin layers;  
5 said stud defining an outer end and having a longitudinal peripheral surface extending inwardly from said outer end;  
said peripheral surface having a longitudinal porous layer thereon for promoting soft tissue ingrowth;  
a shoulder surface oriented substantially perpendicular to said stud peripheral surface and located inwardly from said stud outer end; and  
10 wherein  
said shoulder surface has a lateral porous layer thereon oriented substantially perpendicular to said longitudinal porous layer for promoting soft tissue ingrowth.  
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2. The medical device of claim 1 wherein at least one of said porous layers is characterized by a pore size within the range of 50 to 200 microns with a porosity of between 60 to 95%.
- 20 3. The medical device of claim 1 wherein at least one of said porous layers comprises a mesh of fibers.
4. The medical device of claim 1 wherein at least one of said porous layers comprises a mass of sintered material.  
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5. The medical device of claim 3 wherein said fibers are of metal material from within a group comprised of titanium, nitinol, silver, and stainless steel.
- 30 6. The medical device of claim 3 wherein said fibers are of polymeric material.

7. The medical device of claim 4 wherein said mass is formed of metal material from within a group comprised of titanium, nitinol, silver, and stainless steel.

5 8. The medical device of claim 4 wherein said mass is formed of polymeric material.

9. The medical device of claim 1 wherein said stud carries means for promoting healing.

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10. The medical device of claim 1 wherein said stud carries a sound generator and is configured to percutaneously project into a patient's ear canal.

15 11. The medical device of claim 1 wherein said stud comprises a portion of an implanted catheter providing access to an interior body site.

12. The medical device of claim 1 wherein said stud includes a sensor coupled to an interior body site.

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13. The medical device of claim 1 further including a transitional layer mounted on said stud between said stud outer end and said longitudinal layer.

25 14. The medical device of claim 1 further including a cap configured for mounting on said stud outer end.

15. The medical device of claim 1 wherein said porous layers are formed of biocompatible material.

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16. A method of configuring an implantable medical device with a portion adapted to project percutaneously comprising the steps of:

5 providing a longitudinally projecting stud on said device having an outer end and a peripheral surface extending longitudinally inward from said outer end;

providing a laterally projecting shoulder surface on said device oriented substantially perpendicular to said stud peripheral surface; and

10 forming a porous layer on said stud peripheral surface and said shoulder surface conducive to promoting tissue ingrowth for establishing an infection resistant barrier.

17. The method of claim 16 wherein said step of forming a porous layer comprises forming the layer with a pore size within a range of 50 to 200 microns with a porosity of between 60 to 95%.

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18. The method of claim 16 wherein said step of forming a porous layer comprises forming at least a portion of said layer with a fiber mesh.

19. The method of claim 16 wherein said step of forming a porous layer comprises forming at least a portion of said layer with a mass of sintered material.

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20. The method of claim 16 wherein said porous layer is formed at least in part of metal material from within a group comprised of titanium, nitinol, silver, and stainless steel.

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21. The method of claim 16 wherein said porous layer is formed at least in part of polymeric material.

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